603 – 15th Avenue.
Nisku, Alberta T9E 7M6 Canada
Tel: (780) 955-5004 Fax: (780) 955-0278
www.tigercalcium.com

MATERIAL SAFETY DATA SHEET FOR SALT BRINE–SODIUM CHLORIDE

January 2016

A. GENERAL INFORMATION

Trade Name (Common Name or Synonym) -	Salt Brine – Sodium Chloride
Chemical Name & Synonyms:	Sodium Chloride
Uses	Anti-icer, freeze-proofing and thawing coal, coke, stone, sand, ore. Pre-wetting Salt and Sand, oil patch drilling.
Manufacturer	**Tiger Calcium Services Inc.** 603 – 15th Avenue Nisku, Alberta T9E 7M6

B. COMPOSITION INFORMATION ON INGREDIENTS

	CAS. Reg. No.	Approx %
Sodium Chloride	007647-14-5	10-23%
Water	007732-18-5	77-90%

C. HAZARDS IDENTIFICATION

EYE: At high concentrations may cause lacrimation (tearing) and irritation. Material may be handled at elevated temperatures; contact with heated material may cause thermal burns. May cause severe irritation with corneal injury. Effects may be slow to heal.

SKIN: Short single exposure is not likely to cause significant skin irritation. Prolonged or repeated exposure may cause skin irritation, even a burn. May cause more severe response if confined to skin or skin is abraded (scratched or cut). Material may be handled at elevated temperatures; contact with heated material may cause thermal burns. A single prolonged exposure is not likely to result in the material being absorbed through the skin in harmful amounts. Not classified as corrosive with TDG Act and Regulations.

INGESTION: Single dose oral toxicity is believed to be low. Small amounts swallowed incidental to normal handling procedures are not likely to cause injury; swallowing amounts larger than that may cause injury. Ingestion may cause gastrointestinal irritation or ulceration.

INHALATION: Vapors are unlikely due to physical properties. Mists may cause irritation to upper respiratory tract.

SYSTEMATIC (OTHER TARGET ORGAN) EFFECTS: No relevant information found.

603 – 15th Avenue.
Nisku, Alberta T9E 7M6 Canada
Tel: (780) 955-5004 Fax: (780) 955-0278
www.tigercalcium.com

D. FIRST AID

EYES:	Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids. Get medical aid immediately
SKIN:	Get medical aid if irritation develops or persists. Wash clothing before reuse. Flush skin with plenty of soap and water.
INGESTION:	Do not induce vomiting. Give large amounts of water or milk if available and transport to medical facility.
INHALATION:	Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.

E. FIRE FIGHTING MEASURES:

GENERAL INFROMATION:	As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Substance is noncombustible.
FLAMMABILITY LIMITS:	LFL: Not Applicable UFL: Not Applicable.
HAZARDOUS COMPOSITION PRODUCTS:	Not Applicable.
EXTINGUISHING MEDIA:	This material does not burn. If exposed fire from another source, use suitable extinguishing agent for that fire.
FIRE FIGHTING INSTRUCTIONS:	Keep people away. Isolate fire area and deny any unnecessary entry.
PROTECTIVE EQUIPMENT FOR FIRE FIGHTERS:	Wear positive pressure self contained breathing apparatus (SCBA) and full protective fire fighting clothing (includes fire fighting helmet, coat, pants, boots, and gloves).

F. ACCIDENTAL RELEASE MEASURES

PROTECT PEOPLE:	Isolate area. Avoid contact with eye and skin. May be a slipping hazard. Stop leak if it can be done safely. Wash exposed body

603 – 15th Avenue.
Nisku, Alberta T9E 7M6 Canada
Tel: (780) 955-5004 Fax: (780) 955-0278
www.tigercalcium.com

areas thoroughly after handling. Use appropriate safety equipment.

PROTECT THE ENVIRONMENT: For **small spills**: losses incidental to correct applications of this product in it's intended uses are not expected to be harmful to the environment.
For **large spills:** avoid contamination of drinking water, natural water, ground water, or any waterway. Losses incidental to correct applications of this product in it's intended uses are not expected to be harmful to the environment.

CLEANUP: For **small spills**: contain spill if possible. Absorb with material such as sand. Collect material in suitable and properly labeled containers. Flush residue with plenty of water.
For **large spills:** dike and transfer to suitable and properly labeled containers. Absorb with material such as sand. Flush residue with plenty of water.

G. HANDLING AND STORAGE

HANDLING: Wash thoroughly after handling. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation. Do not ingest or inhale. Product shipped/handled hot can cause thermal burns. Selection of specific items such as gloves, boots, apron, or other, will depend on each operation. If hands are cut or scratched, use gloves impervious to this material for brief exposures. Use gloves with insulation for thermal protection, when needed.

RESPIRATORY PROTECTION: Atmospheric levels should be maintained below the exposure guideline. When respiratory protection is required for certain operations, use an approved air-purifying respirator. In misty atmospheres, use an approved mist respirator.

EXPOSURE GUIDELINES: Sodium Chloride 10 mg/m^3

H. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE/PHYSICAL STATE: Brown liquid.
ODOR: Slight pleasant odor to sulfur order
VAPOR PRESS: 7 – 15 mmHg @ 25C, 77F
VAPOR DENSITY: Same as water.
BOILING POINT: 120 ^oC.
CRYSTALLIZATION TEMPERATURE: -21^oC
SOLUBILITY IN WATER: Completely miscible
SPECIFIC GRAVITY: 1.18– 1.20 @ 25C/70F

I. STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable. Slightly Hygroscopic.

CONDITIONS TO AVOID: Temperature >170 ^oC

603 – 15th Avenue.
Nisku, Alberta T9E 7M6 Canada
Tel: (780) 955-5004 Fax: (780) 955-0278
www.tigercalcium.com

MATERIALS TO AVOID: Attack aluminum / yellow brass; react with sulfuric acid and zinc.

HAZARDOUS DECOMPOSITION Hydrogen chloride, toxic fumes of sodium oxide.

HAZARDOUS POLYMERIZATION: Will not occur.

J. TOXOCOLOGICAL INFORMATION

ACUTE: **CAS#** 7647-14-5: VZ4725000
LD50/LC50:
CAS# 7647-14-5:
Oral, mouse: LD50 = 4 gm/kg;
Oral, rat: LD50 = 3 gm/kg;<BR.Skin:

INGESTION (100%) : The oral LD50 for rats is in the range of 900 – 2100 mg/kg for NaCl.

MUTAGENICITY: Human mutation data reported. EPA Genotox program '88, negative : in vitro cytogenetics-nonhuman; sperm morphology-mus EPA Genotox program '88, inconclusive : mammalian micronucleusoms-esc : 150 mmol/lmmo-smc : 2 mmol/ldni-hmn-fbr : 125 mmol/ldns-orl-rat : 16800 mg/kg/4Wcyt-ipr-rat : 2338 mg/kgdnd-mus-lym : 101 mmol/lmsc-mus-lym : 57200 5mol/lmnt-ham-lng : 4 gm/ldnd-ham-ovr : 275 mmol/lcyt-ham-ovr : 160 mmol/lcyt-ham-lng : 7500 mg/l
For NaCl, in vitro mutagenicity studies were negative.

K. ECOLOGICAL INFORMATION

ECOTOXICOLOGY: Based largely or completely on data for major component(s), material is practically non-toxic to aquatic organisms on an acute basis (LC50 greater than 100 mg/L in most sensitive species).

L. DISPOSAL CONSIDERATIONS

DISPOSAL: Do not dump into any sewers, on the ground, or into any body of water. All disposal methods must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Tiger Calcium Services Inc. encourages that disposal methods be utilized in accordance with the above noted. For unused or contaminated product, the preferred options include sending the material to a licensed, permitted, reclaimer or waste water treatment system.

M. TRANSPORTATION REQUIREMENTS

US and Canadian Shipments:

Proper Shipping Name: Salt Brine (liquid)

Hazard Classification: Not regulated when shipped domestically by land.

603 – 15th Avenue.
Nisku, Alberta T9E 7M6 Canada
Tel: (780) 955-5004 Fax: (780) 955-0278
www.tigercalcium.com

TRANSPORTATION EMERGENCIES:

N. REGULATORY INFORMATION

WHMIS: The Canadian Workplace Hazardous Materials Information System (WHMIS) Classification for this product is: D2B – eye and skin irritant.

Notice: The data and information presented herein are based upon tests, research and reports which are considered by us to be reliable and believed to be accurate. The data and information are presented without warranty, guarantee or liability on our part, and are presented to the customer for his own consideration, investigation and verification.